

WHAT IS CLAIM

1. A method for preparation of transition metal oxide having micro-mesoporous structure whose average fine pore size is not less than 1nm and not more than 2nm comprising, adding and dissolving transition metal salt which is a precursor of transition metal oxide and/or metal alkoxide in the solution prepared by dissolving polymer surfactant in organic solvent, hydrolyzing, polymerizing and self-assembled the transition metal salt and/or metal alkoxide to produce sol solution, and then obtaining framework-stabilized gel from the sol solution, and removing the polymer surfactant by using water or water to which alkali metal or alkaline earth metal ion is added at room temperature .

2. The method for preparation of transition metal oxide having micro-mesoporous structure of claim 1, wherein surface area of transition metal oxide having mesoporous structure is from 100 m²/g to 500 m²/g.

3. The method for preparation of transition metal oxide having micro-mesoporous structure of claim 1, wherein the process to obtain the stabilized gel contains 2nd step aging process which is carried out under the presence of oxygen gas at 60°C to 140°C for 12-48 hours on the gel obtained by gelating the sol solution to gel by aging under the presence of oxygen gas at 35°C to 60°C.

4. The method for preparation of transition metal oxide having micro-mesoporous structure of claim 3, wherein surface area of transition metal oxide having micro-mesoporous structure is from 100 m²/g to 500 m²/g.

5. The method for preparation of transition metal oxide having micro-mesoporous structure of claim 1, wherein polymer surfactant is a nonionic surfactant having polyalkyleneoxide block copolymer frame.

6. The method for preparation of transition metal oxide having micro-mesoporous structure of claim 5, wherein the process to obtain the

stabilized gel contains 2nd step aging process which is carried out under the presence of oxygen gas at 60°C to 140°C for 12-48 hours on the gel obtained by gelating the sol solution to gel by aging under the presence of oxygen gas at 35°C to 60°C.

7. The method for preparation of transition metal oxide having mesoporous structure of claim 6, wherein surface area of transition metal oxide having micro-mesoporous structure is from 100 m²/g to 500 m²/g.